Matthew Newman and Mhairi Collie

Anal fissure:

diagnosis, management, and referral in primary care

M Newman, MBChB, foundation doctor, General Surgery; **M Collie**, MD, FRCS, consultant colorectal surgeon, Colorectal Surgery, NHS Lothian, Edinburgh.

Address for correspondence

Matthew Newman, General Surgery, Edinburgh Royal Infirmary, Edinburgh EH1 3EG, UK.

Email: matthew.newman1@nhs.net

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INTRODUCTION

Anal fissures are tears of the anal mucosa. They can cause extreme pain (often up to 1–2 hours post-defaecation) and in many cases bleeding. Acute anal fissures are classified as lasting <6 weeks, whereas chronic fissures last >6 weeks. Primary fissures have no clear underlying cause. This is in contrast to secondary fissures, which are thought to be caused by another principal condition.

If not treated effectively, anal fissures can lead to recurrence, infection, or abscesses. They can also lead to faecal impaction as patients avoid defaecation, not to mention the overall reduced quality of life.[1] The lifetime incidence of anal fissures is estimated to be around 11%, with males and females equally at risk.[2]

Although many anal fissures are primary fissures without any underlying cause, secondary causes should also be explored. These can include:

- inflammatory bowel disease;
- HIV/AIDS;
- colorectal cancer
- dermatological conditions such as psoriasis or pruritis ani;
- anal trauma (anal sex, surgery, pregnancy); and
- medications, for example, opioids or chemotherapy.

Examination is best performed in the lateral position, gently parting the buttocks to visualise the anal canal. Most fissures occur in the midline posteriorly. Acute fissures are apparent as a fresh break in the skin immediately inside the anal margin. Chronic fissures are usually accompanied by a skin tag at the distal end of the fissure and exposure of the circular fibres of the internal sphincter (a 'sentinel tag').

A common finding on examination is spasm of the anal canal due to hypertonia of the anal sphincter. Digital rectal exam is not recommended in primary care due to the associated pain.[3]

MANAGEMENT

A mainstay of management of anal fissures is ensuring that stools are soft, regular, and passed easily. Adults should increase their dietary fibre intake to 18–30 g per day and ensure adequate fluid intake. Bulk-forming or osmotic laxatives (such as ispaghula husk or lactulose respectively) can be used to encourage healthy bowel movements in the short term; however, a high-fibre diet should be maintained once the fissure has healed so to prevent recurrence.[4]

Sound pain control is also required. This can be achieved through regular analgesia such as paracetamol or ibuprofen. Buscopan or mebeverine for post-defaecatory gripping proctalgia is helpful. Warm baths are also recommended. If stronger pain control is required then tramadol could be considered; however, the risk of constipation should be carefully measured and discussed with the patient. Short-term use of topical anaesthetic such as lidocaine 5% ointment has been proven to be effective, although this should only be used in the short term (maximum 14 days). Lidocaine ointment is most effective when applied 1–2 minutes prior to defaecation.

Glyceryl trinitrate 0.2% or 0.4% rectal ointment can be prescribed to encourage healing of anal fissures. This should be used twice a day for up to 8 weeks. It is thought to work through increasing blood flow to the area and encouraging muscle relaxation. Studies have found that this is effective in comparison with a placebo; however, increasing the strength of the ointment does not reduce healing time.[5] Headaches are reported to be the most significant side effect and a recurrence rate of approximately 50% has been reported. Glyceryl trinitrate ointment should be avoided in pregnant or lactating women.

Topical diltiazem hydrochloride 2%

or topical nifedipine 0.2–0.5% have both proven to be effective alternatives with a reduced side effect profile when compared with glyceryl trinitrate ointment. These two medications are however unlicensed for treatment of anal fissures and are generally only prescribed in secondary care.

It is important that patients understand that these topical preparations do not in themselves relieve pain on application, although they lead to successful healing of fissures in most cases.

When medical therapy has failed, local injection of Botox is recommended. Most surgeons only recommend Botox twice in a lifetime as treatment for a fissure in case of sphincter damage. Some patients may be considered for an anal advancement flap. The last post surgically for treatment is a lateral surgical sphincterotomy; however, this comes with a small risk of permanent incontinence.

For fissures in unusual positions, in multiple locations, or not healing despite optimal conservative therapy, a secondary anal fissure should be suspected. For these patients, management of the underlying condition should also be optimised and referral initiated.

WHEN TO REFER

- In all children with ongoing anal fissure for 2 weeks despite treatment.
- In adults with ongoing pain after 8 weeks.
- In adults if the fissure is still apparent after 16 weeks (even if pain is not).
- If a secondary fissure is suspected due to a condition which warrants referral; that is, colorectal cancer or inflammatory bowel disease.

CONCLUSION

Anal fissures can have a significant adverse affect on patients' quality of life. Conservative management with stool softening and analgesia should be explored first. Glyceryl trinitrate can be used; however, the side effect profile and recurrence rate for some patients may mean that treatment is ineffective. Topical diltiazem and nifedipine can be tried as alternatives. If, after 8 weeks, medical therapy has not proven to be effective, referral to secondary care is welcomed. If an anal fissure is suspected to be secondary to a serious underlying condition, referral should be expedited.

Provenance

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Competing interests

The authors have declared no competing interests.

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